

Creating Product & Still Life
Images With Low Cost Lighting

the conception to the completion of an image. When producing my travel photography I most often treat it as a *subtractive art*. I see an area with my subject in it and begin to subtract elements until I have achieved the desired composition. Richard Avedon spoke of the subtractive process when he said "When you get close enough, get closer."

With still life and product images, we work with an additive art. The photographer, like a painter, begins with a vision and a blank canvas. Then we add and arrange elements until we achieve the desired composition.

Recently a fellow photographer making a presentation asked the question "What is a photographer?" and answered it with "A photographer is: a creative problem solver; and a visual communicator." My following thought was there is no "visual" without light.

Managing light is a core element of our creations. We must have the right *quantity* of light to achieve proper exposure and the right *quality* of light to: see where the story is taking place; relate to the mood or feeling we want to convey; enjoy the pictorial beauty; and, to achieve third-dimensional illusion.

In the interest of disclosure I will not attempt to define "low cost" but will assure that all techniques presented used less than \$1,000 in lighting equipment. I also suggest that as a part of the consideration of the cost of lighting that we consider the cost per image. For example a flash costing \$300 with a useful life of 50,000 actuations costs \$0.006 per flash. A single 250 watt photoflood bulb burning for 15 minutes costs the same.

I enjoy creating product and still life images because of the way it challenges my imagination. It causes me to apply creativity in many ways on the path from

Tonight we will look at about 25 lighting techniques. But I think more importantly we will discuss a framework that will underpin creativity and lead us to find many more than 25 techniques.

A Framework

Vision
Light
Light Modifiers
Practice

These are the four sides of the frame that we use in CREATING photographs. It is applicable to all photographs.

Vision is that prescient sense of the completed work; it is the mental image of what we are about to create. It is born of one of the most powerful forces the world has known – that is imagination.

Light is available from many sources and more important can be bent and shaped in many ways.

Modifiers are the tools we use to bend and shape light.

Practice gives us experience that grows our imagination

Creating the Vision

The best way to get a good idea is to get a lot of ideas – Linus Pauling

Getting a lot of ideas lets us have the opportunity to find a good one in the bunch. Practice is not the only way to foster a lot of ideas. Here are a few more.

Building Creativity

Books
Museums
Movies
Television
Stage Productions
Experience



There are a lot of great photography books. We should look at technique books and the work of other photographers. Some of the books you might find interesting are here.



Looking at the work of other photographers should not be the limit of our inputs. We are artists, and should take in the work of other artists without limiting the medium.



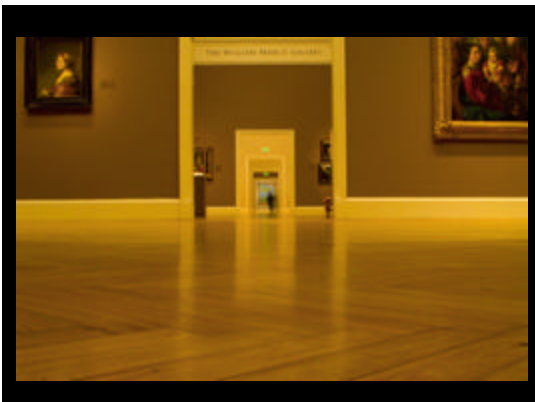
Caravaggio is one of my favorite painters. He is considered a master of chiaroscuro or "light and dark" and for us, contrast. The calling of St. Matthew is an excellent example of the use of light.



Most of us read magazines. These are a few of my must-reads. Not all are photo magazines.



Like books, museums let us look at a variety of art work. One of the great things about museums is that we see the works in greater scale and generally in better light.



Movies provide us with very innovative lighting techniques and tools. Some of the most dramatic are from the classic film noir period, 1940-1960. I recommend that you record or rent movies just to study the lighting.

In addition to the books, movies, museums, there are great lighting ideas to be found by watching stage productions. When I attend one, my program gets used as a note pad.

Sources of Light

I will show some, you should think of more. Each source of light has its own qualities and thereby may impact the message we intend to communicate with the image.

Natural Sources of Light

- Sun
- Moon
- Combustion
 - Wood
 - Candle
 - Oil
 - Propane
 - Fireworks
- Heat
 - Embers
 - Sparks

Electric Sources of Light

- Incandescent
- Fluorescent
- Neon
- LED Flashlight
- Focusing Flashlight
- Electric Arc
- Street Lamp
- Auto Headlight
- Projector
- Laser
- Sparks

For purposes of this presentation, incandescent refers to tungsten

Light Modifiers

If we multiply the light sources by the light modifiers we have an enormous variety of possible lighting techniques. We may choose some for comic or lighthearted compositions, others for drama, and some for mystery.

Man Made Light Modifiers

- Reflector
- Diffuser
- Umbrella
- Light Box
- Filter
- Gobo
- Flag / Barn Door
- Scrim
- Prism

Natural Light Modifiers

- Fog
- Clouds
- Foliage
- Smoke
- Reflective Surfaces

Miscellaneous Stuff

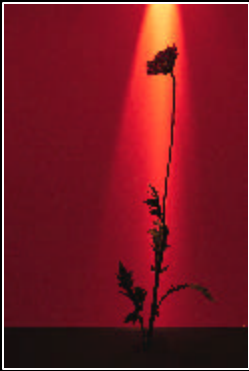
- Clamps
- Gaffers Tape
- Backgrounds
- Stands
- Props

Practice

So let's see some ways to apply these tools and light sources.

1
Focusing Flashlight, No Modifier

Focusing Flashlight is a moderately harsh light and without modification can be used for drama, sharp lines, strong highlights. Watch out for blown out highlights.



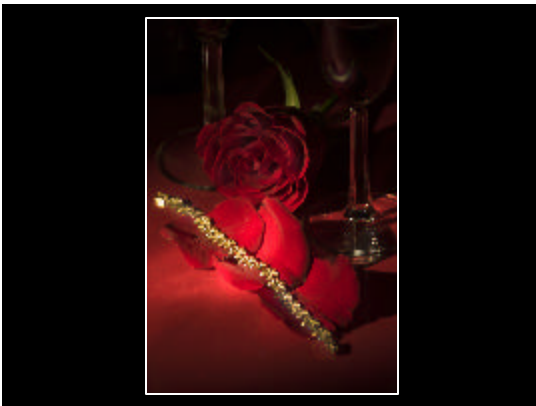
Daisy Silhouette.



Downtime. This technique is about using a focusing flashlight not about smoke. But it is worth noting that smoke needs a backlight. That is the easy part. A longer exposure gives the light a chance to reflect off diffused smoke and shows a large blob of smoke. An exposure of about 1/8th second is enough to get the stream without the blob.



Breakup. Gloom, despair, agony, deep dark depression, excessive misery.



Hot Date



Dumber than... You finish it.



The title of the presentation doesn't indicate that the studio costs are also low cost. These shots were set up similar to this, which is the set for Daisy Silhouette.

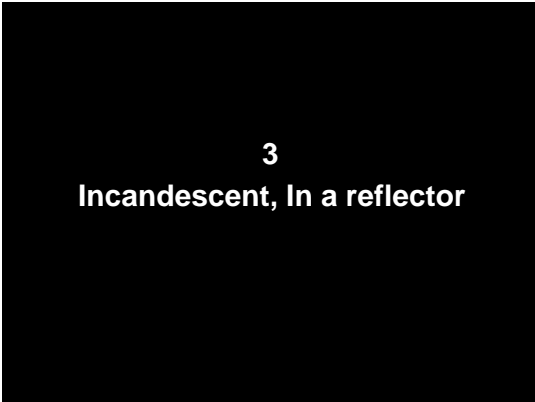
The focusing flashlight is...
Background
Foreground
Support

2
**Focusing Flashlight,
Incandescent Fill, No Modifier**



Mums on Shelf. The set up is the same as above with the addition of an incandescent in a cheap reflector at camera right. The shelf is kind of interesting and you will see that part of the set in a couple of slides.

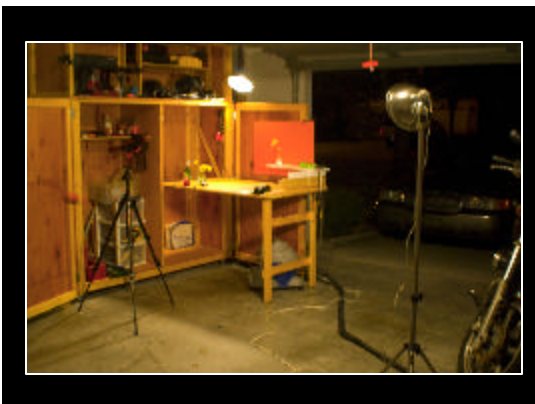
The vase is blue.



This particular light is a \$6 building supply clamp lamp. Two are used in the next shot



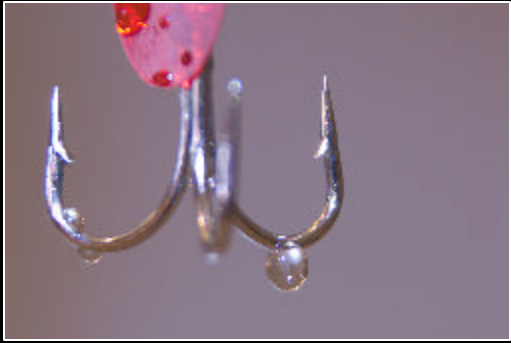
Daisy on Shelf. The light on camera left is higher than the one on camera right. Placing the lights at different distances from the subject produces different intensities on the subject. The fall-off in intensity is exponential.



The motion blur shot of the set. The motion blur is an effect, an unintended effect.

4
Focusing LED Flashlight, No
Modifier

The LED light is cooler than the flashlight bulb and distance seems to make it softer more quickly. The one used in the next shot is about a \$20 model that uses 3 AA batteries.



Get the Point? The LED light is cooler than the flashlight bulb producing an appropriate affect on the steel.



When you use clamps and other tools like the one seen here it is easy to hold the light with one hand and the release the shutter with the other.



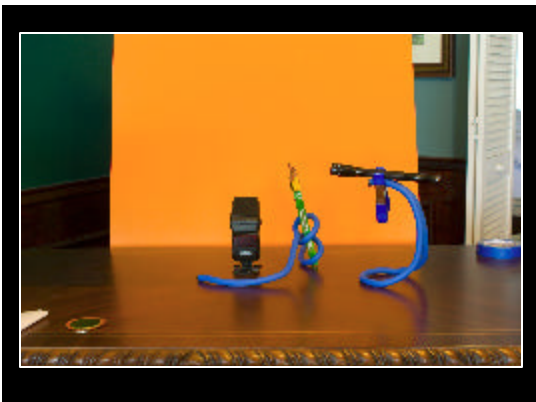
Deceit. Using the small light beam facilitates selective lighting of very small subjects.



Peanuts. I keep an assortment of colored mat boards to use as backdrops. They are 32"x40". This image and the one before it were shot back to back. I simply moved the lures aside and put the peanuts in place. The same LED flashlight was used in the same way.



The Sharpest Pencil in the Box. It is easy to see the shape of the beam. Believe it or not there are even flashlight aficionados. They refer to the presence of the bright spot and its larger darker area as a double beam. This is sometimes a drawback to using a flashlight. It can be distracting. In this case it works because the sharpest pencil needs the sense of place it gets from the less intense light.



This is the set for a different pencil shot. What I want to show with it is the flashlight and the gadgets that supported for the previous shot. In the set shown I used the SB600 to illuminate the backdrop and the LED flashlight to illuminate the pencils.

Notice the jar lid in the lower left of the image. It is one of my reflectors.



Fireplace may be a misnomer. It is actually a chimenea, but the combustion of wood is still the light source. It is very warm light and good for creating an intimate mood.



The reasons the up-light is OK on the face are that the face is leaning over the light to make it more square to the face, and that the light is on the far side of the face. Also known as short lighting.



A note not related to lighting. The breeze blew the tags, so they are taped to the cups.



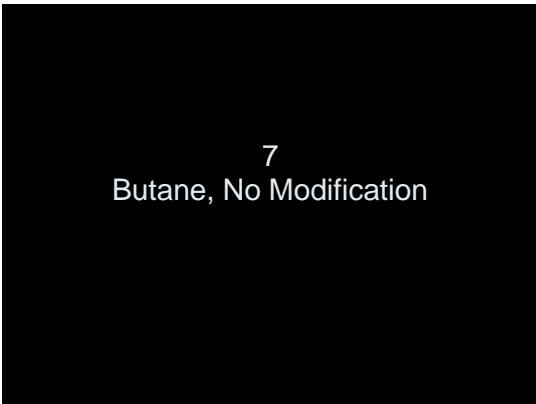
For the images in the next couple of slides I wanted to create the warmth and feel of a baroque period painting. I decided that the best way to do that was to use the same light source as Caravaggio might have.



Book & Candle. This image was in a competition and the judges said they thought the candle light may have been digitally manipulated. It wasn't. The exposure was about 4 seconds and produced this result. I am the only photographer that I know of who keeps a couple of candles and candle holders in their lighting gear. Only when working at my travel photography are they not readily available.



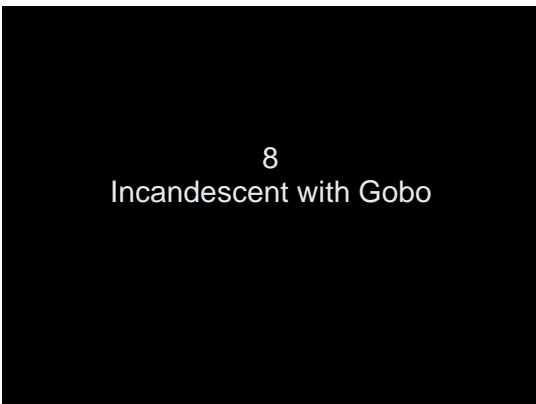
Caravaggio's Pears. The only light is a candle at camera left. The only light source that costs less is the sun.



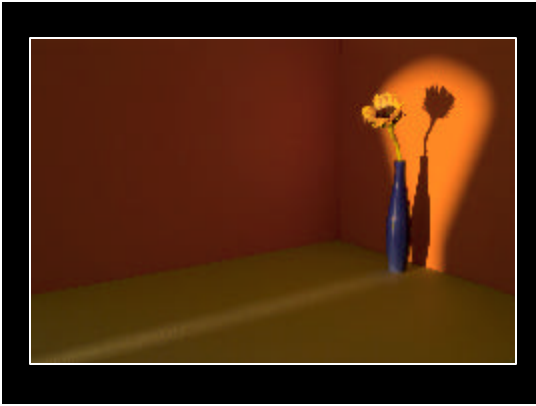
More fire.



Prometheus and a Cigar. The qualities of the light are not much different than a candle, but it is brighter.



Gobo stands for go between. It is a light modifier that goes between the light and subject. It can shape the light in any way the photographer chooses. They can be made from most any material. The next few slides show how to make and use a couple of different gobos.



Sunflower in Blue Vase. The idea came from a painting I saw in Santa Fe.



The gobo is cut from card board, clamped to a couple of light stands and placed in front of an incandescent light in a reflector. Two pieces of mat board make the corner the vase sets in and a third mat board is under the vase.



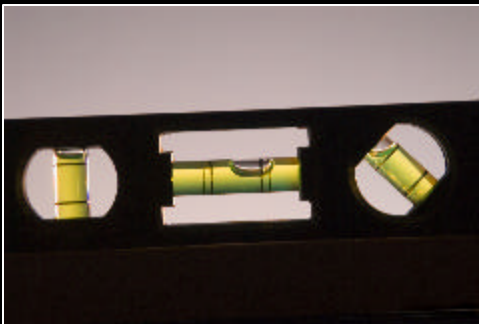
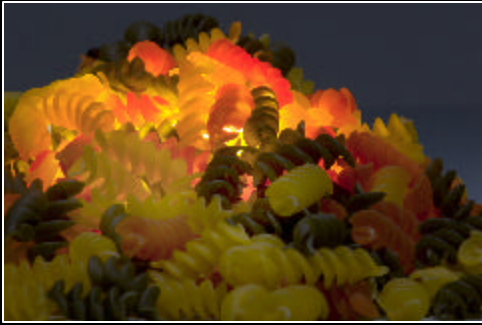
Orange and a Knife. This is done with a single naked incandescent bulb clamped to a light stand. The gobo is a mini blind suspended between two light stands.



This room has windows but all of the blinds were pulled and the lights were off except the one on the light stand. There was very little ambient light which allowed the bulb to cast the shadows.

9
Flash as Back Light, Subject is
Modifier

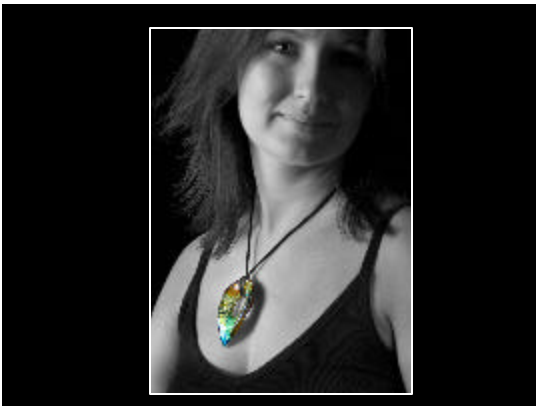
This next shot was like nothing I have ever seen. I was shooting tri color pasta and decided to pile it up on an SB600 and fire it remotely. Exposure is totally trial and error. There was nominal ambient light in the room.



Half-A-Bubble Off. This is simply an SB600 behind the level.

10
Northern Light, No Modifier

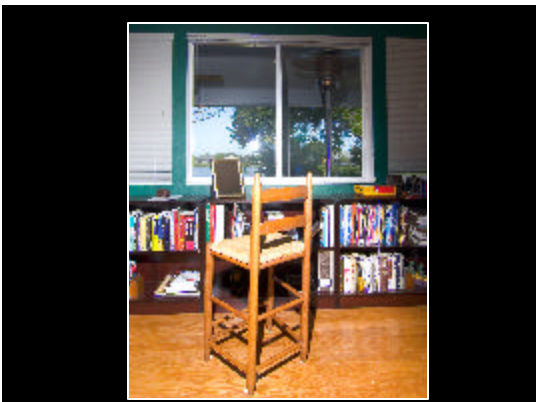
Northern light is also known as window light. It is very soft and very desirable in portrait photography. It is easy to find and nothing costs less.



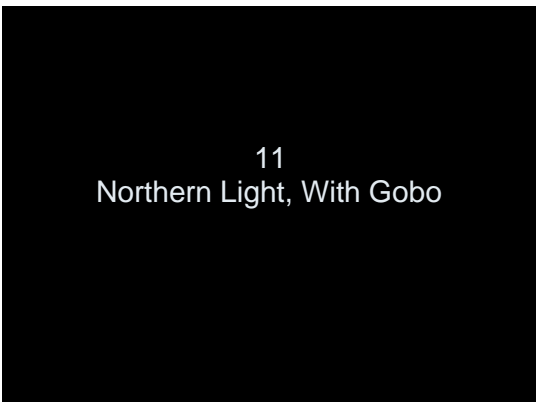
Murano Glass.



Security.



This is the source of the northern light for the previous two images. Notice the blinds are closed on either side of the source window. The mirror was used to provide a small hair light by reflecting light back from the window to the models hair.



11
Northern Light, With Gobo

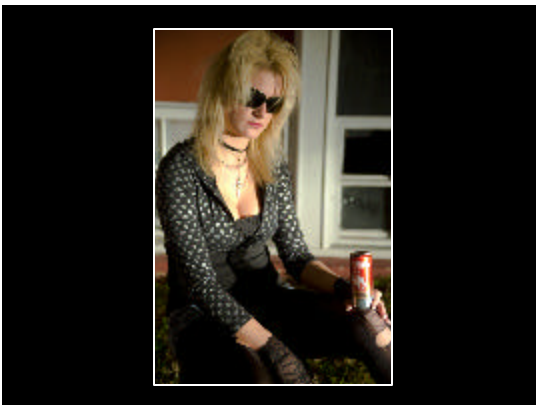


The blinds are on the window the vase is on a table.

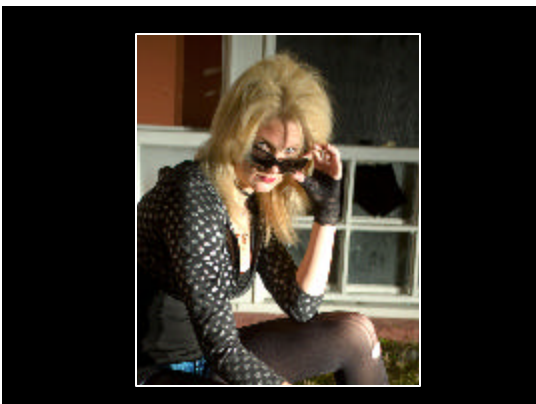


I saw an image that Michael Grecco had done using an auto headlight. It is a harsh light and produces deep shadows. It can set a mood for tough, rough, unrefined, mean, and on the edge.

A note about shadows. Where there is no light, one cannot see; and when one cannot see, their imagination starts to run wild. We suspect that something is about to happen. In the dark there is mystery.



Adrenaline. An energy drink.



Say What?

13
Halogen, Water Modifier

The next light image is illuminated with the light from the bottom of a fountain at a shopping mall. It is diffused by the water. It is also interesting to see the same model in a different set and wardrobe.



Waiting and Watching.

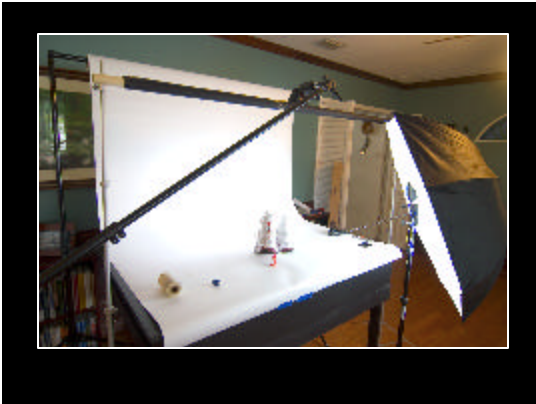
14
Flash With Brolly Boxes

Brolly Boxes are like umbrellas with diffusers on the face. They are in essence, a soft-box. They are less expensive than soft-boxes, and more portable. The flashes that I use are SB600's and an SB800.



Gumshoe. There is no person in the shoes. They are sitting on a table. There are three lights. Brolly boxes on the right and left and an unmodified flash on a boom to illuminate the white seamless backdrop.

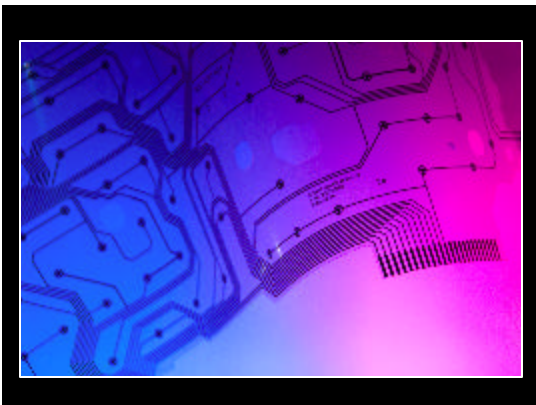
If this were not a high key shot it would not convey the humor.



A bar is fixed to a pair of light stands and a string is tied to the bar to lift the shoe. One Brolly box is shown the other has been moved for a view. The boom comes up from the left.

15
Two Flash Units, With Two Gels

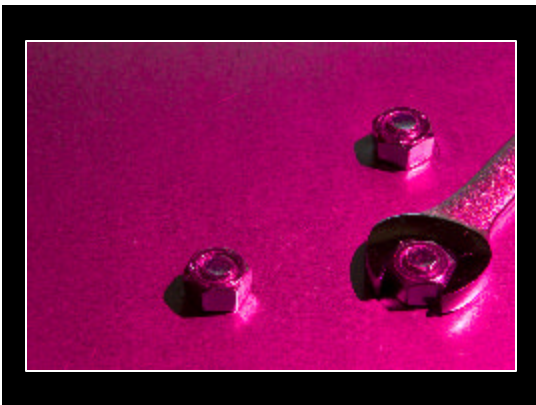
Or, One Gel each



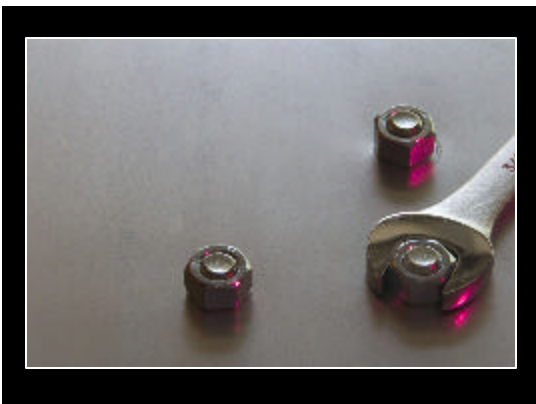
16
One Flash, With Gel



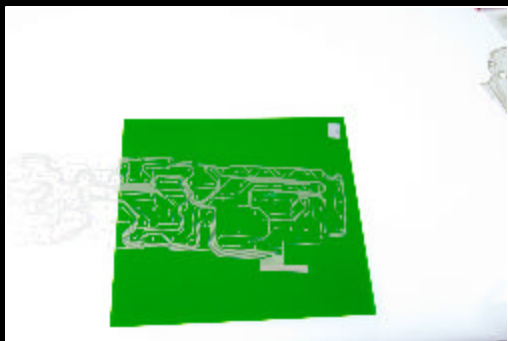
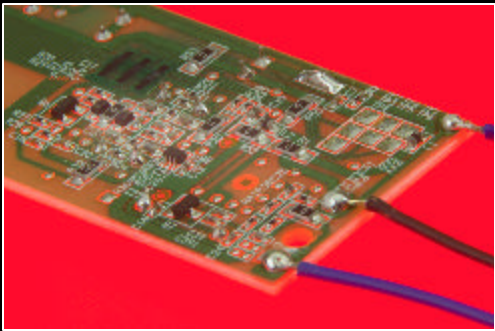
The blue gel is on a SB-600 flash that is mounted on a boom. The flash is over the bag and aimed at the white seamless backdrop. The white is the result of the over exposure that falls off to reveal the blue. Some of the light spills forward to the coffee beans. I like the blue highlights on the black beans better than white highlights. I will apply more blue highlights to black subjects.



Sometimes we overdo things. The red gel gave me more than I wanted so I had to back it away and reduce the power.



17
Light Table With Gel



18
Fireworks & Incandescent No
Modification

After seeing all of my light sources, my wife spells photographer differently. She now spells it, p-y-r-o-m-a-n-i-a-c



Independence Celebration



New Years.



Hot Peppers. The set up for these shots started with mat board, then glass to keep from igniting the mat board with the fireworks. The sparklers for Hot Peppers and Independence Celebration were stuck in Playdough that sat on the glass. For New Years, they were hung from a string stretched above the props.

Of course there is a do not try this at home disclaimer. Here's why.

19

Flash Backlight, North Light Fill



20

Laser Modified by Subject



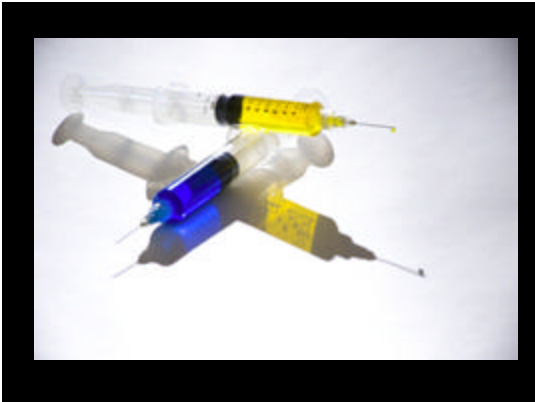
The light is not actually a part of my gear. My wife bought it to play with our cats. It works for ducks too.

Olio de Pesce. When the light passes through the fish oil it dances. The capsules are actually yellow. But this makes them look more potent or powerful.

21

LED Backlight with Black Bounce & White Bounce

Backlight is a desirable method for product photography. We often bounce light back into the scene to avoid creating a silhouette. The bounce is often achieved with white or silver reflectors, cards, or other devices. The objective of this shot is to show that black may also be an effective bounce.



Bad Medicine. This is with the black bounce. It is useful for putting an edge on highly reflective objects like these needles. Glass is another object that may use a black bounce effectively.

The black bounce also enhances shadows.



22

Flash in Brolly Box With Gobo

The Gobo is a branch that I cut off an oak tree in the yard clamped between the brolly box and subject.



It gives the sterile studio setting a more natural feel.



To control the placement of the shadow better, I resorted to the focusing LED flashlight. I could direct the light better.



This is brolly box without modification.



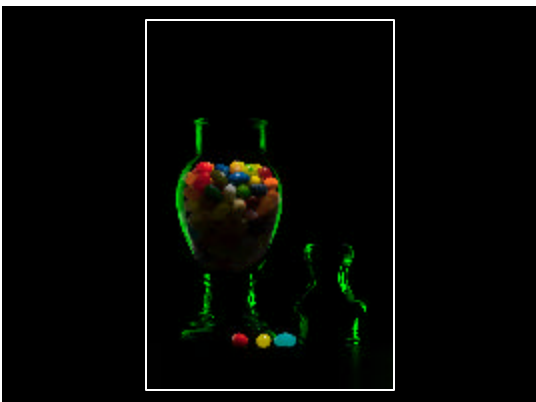
SB-600 with a snoot. You can't buy a snoot for the SB-600 but you can make one from a scrap piece of mat board.



The snoot and flashlight



This technique can be accomplished with or without a gel. We will look at both ways. It requires two images with different exposures that are later composited in Photoshop.



Jelly Beans. The jar is a clear glass. The green is from the gel on the flash. One exposure is done for the rim light of the glass. The second exposure requires removal of the gel and makes a proper exposure of the contents of the glass.

In Photoshop the two images are layered and the contents revealed.

27
Flash in Brolly Box with Flag

This is one of my favorite techniques



Why?



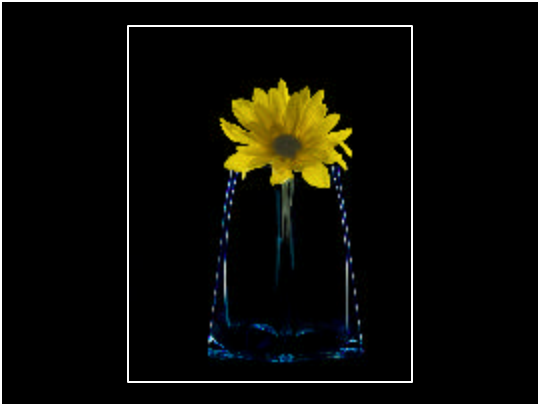
Sunflower



Cognac



Empty Bottle



Blue Vase



Lemonade



Ten